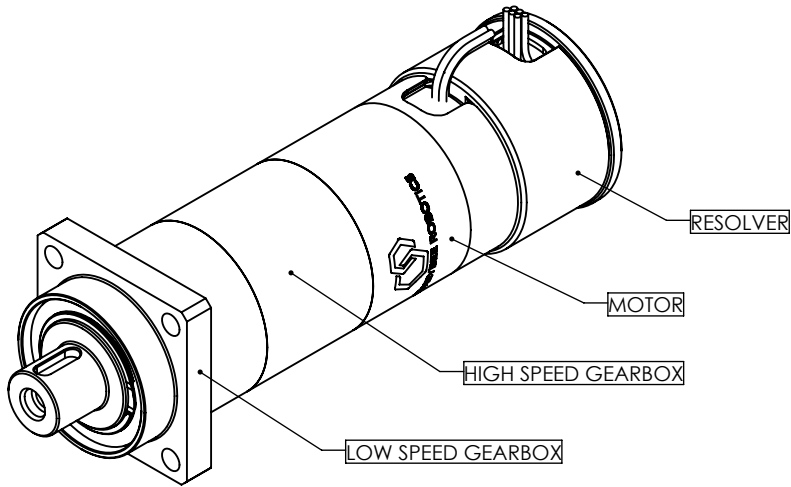
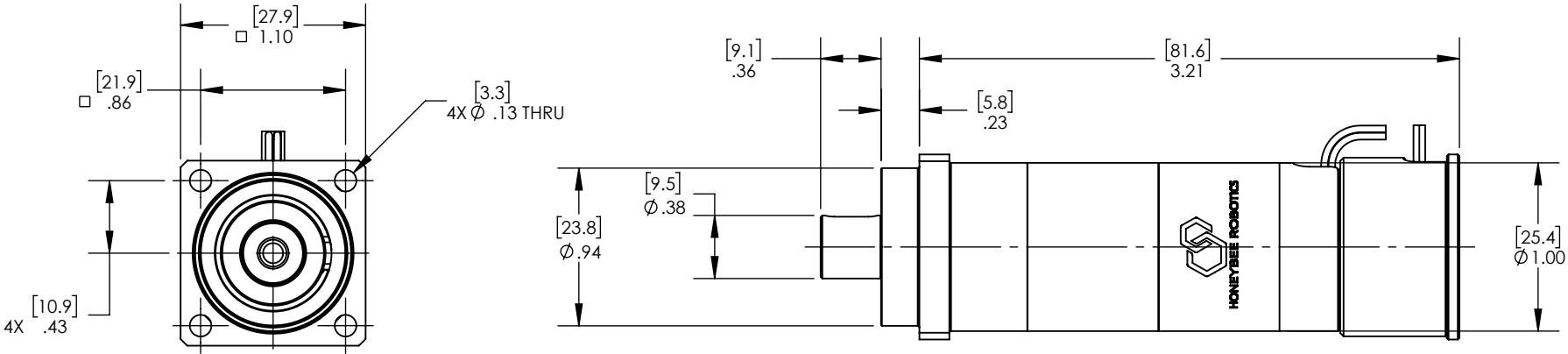
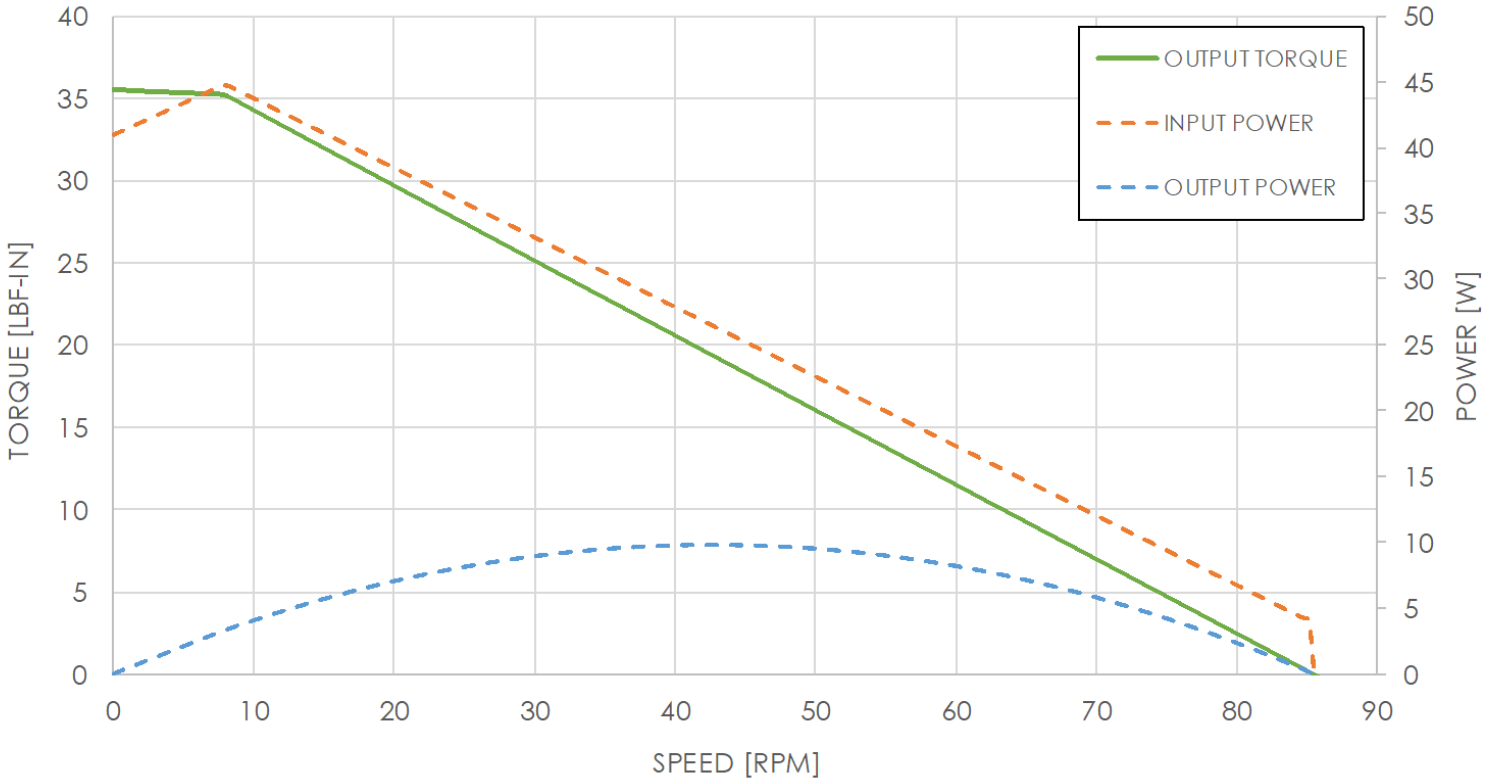


D	6	MECHANICAL PARAMETERS	
		FRAME SIZE	- C
		OVERALL LENGTH	in [mm] 3.80 [96.5]
		NOMINAL OD	in [mm] 1.00 [25.4]
C		MASS	lbm [kg] 0.55 [0.3]
		OPERATIONAL PARAMETERS	
		NOMINAL OPERATIONAL VOLTAGE	V _{bc} 28
		MAXIMUM ALLOWABLE CURRENT LIMIT	A _{bc} 1.6
		NO LOAD SPEED	RPM 85
		STALL TORQUE	lbf-in [N·m] 36 [4.0]
		TORQUE LIMIT (10,000 CYCLE FATIGUE LIFE)	lbf-in [N·m] 36 [4.0]
B		TORQUE LIMIT (1,000,000 CYCLE FATIGUE LIFE)	lbf-in [N·m] 11.2 [1.3]
		OPERATIONAL TEMPERATURE RANGE	°C -60 TO 100
		SURVIVAL TEMPERATURE RANGE	°C -80 TO 200
		MOTOR WINDING PARAMETERS	
		NUMBER OF PHASES	- 3
		NUMBER OF POLE PAIRS	- 2
		WINDING CONFIGURATION	- SIMPLEX WYE WOUND
A		ROTOR INERTIA	oz-in-s ² x10 ⁻³ [g·cm ²] 0.044 [3.1]
		BACK-EMF CONSTANT	V _{PEAK} /rad/s 0.052
		TORQUE CONSTANT	lbf-in/A _{PEAK} [N·m/A _{PEAK}] 0.46 [0.052]
		MOTOR CONSTANT	lbf-in/√W [N·m/√W] 0.12 [0.014]
		RESISTANCE (LINE-LINE)	Ω 12 - 16
		INDUCTANCE (LINE-LINE)	mH 3.0 - 5.0
		COMMUTATION SENSOR PARAMETERS	
		SENSOR TYPE	- VARIABLE RELUCTANCE RESOLVER
		REDUNDANCY	- SIMPLEX
		EXCITATION FREQUENCY	kHz 20
		EXCITATION VOLTAGE	V _{RMS} 5.1
		TRANSFORMATION RATIO (OUTPUT/INPUT)	- 0.4
		RESOLVER SPEED	- 2X
		GEARBOX PARAMETERS	
		GEARBOX TYPE	- PLANETARY
		GEAR REDUCTION	- 60:1
		NUMBER OF STAGES	- 2
		TYPICAL BACKLASH	DEG 1.25

- NOTES;
- PERFORMANCE AND TEMPERATURE OPERATIONAL ENVELOPES ARE DEPENDENT ON DUTY CYCLE, THERMAL BOUNDARY CONDITIONS, MOTOR POWER LOSSES AND DERATING REQUIREMENTS OF THE APPLICATION. CONTACT HONEYBEE ROBOTICS FOR EVALUATION UNDER SPECIFIC CONDITIONS.
 - TORQUE-SPEED CURVE AND OPERATIONAL PARAMETERS ARE APPLICABLE FOR BOTH TRAPEZOIDAL AND SINE DRIVE TYPES
 - STEP FILE ATTACHED TO PDF.

ACTUATOR AMBIENT PERFORMANCE ENVELOPE



UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES CRITICAL DIMENSION ALL FEATURE CONTROL FRAME INTERPRET DRAWING PER ASME Y14.5-2018 LINEAR TOLERANCES: .X ±.05 .XX ±.01 .XXX ±.005 XXXX CRITICAL ANGULAR TOLERANCES: ±0.5 DEGREES		HONEYBEE ROBOTICS PROJECT TITLE STANDARD PRODUCT DATA SHEETS PART NUMBER 560-101-0049 PART DESCRIPTION C-SIZE BLDC (RESOLVER), 3-PHASE, 60:1 CAGE CODE 8DSS5		 REVISION B	
SURFACE ROUGHNESS 63/ MICROINCHES OR BETTER		SHEET SIZE B		SHEET 1 OF 1	